

GARDNER, CARTON & DOUGLAS

1301 K STREET, N.W.

SUITE 900, EAST TOWER

WASHINGTON, D.C. 20005

(202) 408-7100

FACSIMILE: (202) 289-1504

WRITER'S DIRECT DIAL NUMBER

JOCELYN R. ROY

202-408-7139

jroy@gcd.com

CHICAGO, ILLINOIS

April 25, 1996

RECEIVED

APR 25 1996

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Room 222
Washington, D.C. 20554


DOCKET FILE COPY ORIGINAL

Dear Mr. Caton:

Enclosed, on behalf of Andrew Corporation, is an original and four copies of its Comments in response to the Commission's *Notice of Proposed Rulemaking* in ET Docket 96-35 regarding the adoption of flexible standards for directional microwave antennas.

Should you have any questions concerning this filing. Please do not hesitate to contact the undersigned.

Sincerely,



Jocelyn R. Roy, Esq.

Enclosure

024

RECEIVED

APR 25 1996

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of

Amendment of Parts 74, 78, and 101
of the Commission's Rules to Adopt
More Flexible Standards for Directional
Microwave Antennas

)
)
)
)
)
)

ET Docket No. 96-35

Comments of
ANDREW CORPORATION

Andrew Corporation ("Andrew"), by its attorneys and pursuant to Section 1.415 of the rules and regulations of the Federal Communications Commission ("FCC" or "Commission"), 47 C.F.R. § 1.415, hereby files its Comments in response to the Commission's *Notice of Proposed Rule Making* ("NPRM") in the above-referenced proceeding. The *NPRM* proposes changes in the rules governing the fixed microwave services to make them compatible with new, emerging technologies for directional antennas.

I. INTRODUCTION

1. Andrew Corporation is an internationally-recognized manufacturer and supplier of communications systems equipment and services, including microwave antennas, and is a pioneer in the development of new antenna designs. Markets that Andrew serves encompass wireless communications, including cellular, personal communications, land mobile radio and common carrier systems. As a manufacturer and supplier of microwave antennas, the rules and regulations proposed by the FCC in this *NPRM* will have a direct impact upon Andrew's business operations and development.

II. COMMENTS

A. **The Proposed Rules Will Cause Harmful Interference to Co-channel Users**

2. The Commission proposes to amend the rules regarding fixed microwave antennas to allow directional antennas to comply with requirements for *either* minimum antenna gain *or* maximum beamwidth. *Notice* at ¶ 6. The Commission believes that the present rules do not allow the flexibility for users to employ alternative directional antenna designs, such as planar arrays, which can achieve narrow bandwidths (and thus comply with the intent of the Commission's rules), but may not be able to achieve the minimum antenna gain required under the present rules. The present rules, which were developed according to the technical parameters of conventional antennas (*i.e.*, high antenna gain correlates to low beamwidth), were designed to limit the radiation of power in unintended directions.

3. While Andrew supports the Commission's goal of encouraging the development and use of emerging technologies, Andrew believes that the proposed rule will undermine the Commission's original goal of the present rule: to limit potential interference. By apparently addressing only potential interference incident to a directional antenna's azimuth plane, the proposed rule ignores significant potential for interference incident to the antenna's elevation plane. In certain equipment testing or emergency situations, for example, antenna users sometimes will rotate an antenna 90 degrees in order to obtain the desired polarization. When that occurs, the mainbeam in the now-effective azimuth plane may be extremely large, thus potentially causing havoc to nearby microwave traffic.

B. The Commission Should Adopt Rules Requiring Elevation Limitations

Andrew suggests that, if the Commission adopts the proposed rules, it also consider adopting rules to require specific limitations on the radiation power in *both* the azimuth and elevation planes of directional antennas, in order to minimize the antennas' interference potential. Adoption of rules to take into account the radiation of power in both the azimuth and elevation planes will better achieve the Commission's goal of encouraging the development and use of new technological developments, while minimizing the risk of harmful interference. Additionally, such rules will ensure that antenna manufacturers continue to provide quality directional antennas. The Commission could achieve this change easily by simply noting in Sections 74.536, 74.641, 78.105 and 101.115 of the Rules, and on the matrix attached to the *Notice*, that the beamwidth limitations and radiation suppression limitations set forth therein apply to *both* the azimuth and elevation planes.

III. CONCLUSION


Andrew supports the Commission's goal of encouraging the development and use of technological innovations. However, Andrew believes that the Commission should take the steps necessary to ensure that the use of such innovative products does not undermine the intent of the Commission's present rules.

WHEREFORE, for the foregoing reasons, Andrews respectfully requests that the

Commission consider and adopt the regulations in accordance with the arguments and opinions expressed herein.

Respectfully submitted,

ANDREW CORPORATION

By: 
Grier C. Raclin, Esq.
Russell H. Fox, Esq.
Jocelyn R. Roy, Esq.
Gardner, Carton & Douglas
1301 K Street, N.W.
Washington, D.C. 20005
(202) 408-7108

Its Attorneys

Dated: April 25, 1996